

WHAT IS CLAIMED IS:

1. A beta-glucan concentrate having a honeycomb structure.
2. A beta-glucan concentrate as in claim 1 wherein the concentrate is derived from oat or barley flour.
- 5 3. A method of preparing a beta-glucan (BG) concentrate product comprising the steps of:
 - a) mixing a flour and an alcohol to form a flour/alcohol slurry;
 - b) separating a fiber residue from the alcohol, wherein the fiber residue has a high BG content; and,
 - 10 c) subjecting the fiber residue from step b) to at least one additional treatment step, the additional treatment step including mixing the fiber residue from step b) with an alcohol to form a fiber residue/alcohol slurry and subjecting the fiber residue/alcohol slurry to a sonication, protease or amylase treatment step or a combination of a sonication, protease or amylase treatment steps and
15 thereafter separating a final fiber concentrate from the fiber residue/alcohol slurry wherein the fiber concentrate has a honeycomb structure.
4. A method as in claim 3 wherein the flour is an oat or a barley flour.
5. The use of a beta-glucan concentrate of claim 1 as wall material for encapsulation.
6. A method of encapsulating a compound within a beta-glucan concentrate having a
20 honeycomb structure comprising the steps of:
 - a. mixing a beta-glucan concentrate of claim 1 with an encapsulant under conditions to promote occlusion of the encapsulant within the honeycomb structure; and
 - b. washing the resulting capsules.
- 25 7. A method as in claim 6 wherein the conditions of step a) partially solubilizes the honeycomb structure.
8. A method as in claim 6 wherein step a) is an extrusion process.
9. A method as in claim 6 wherein prior to step a), the honeycomb structure is subjected to a pre-mixing step wherein the beta-glucan concentrate is moistened with water.

10. A method as in claim 9 wherein the pre-mixing step adjusts the moisture content of the fibre concentrate to 15-40 % (w/w).
11. A method as in claim 5 wherein the capsules are sealed.
12. A method of encapsulating a compound within a beta-glucan concentrate having a honeycomb structure comprising the steps of:
 - a. mixing a beta-glucan concentrate of claim 1 with an encapsulant under conditions to promote partial solubilization of the beta-glucan concentrate; and,
 - b. adjusting the conditions of mixing to precipitate beta-glucan concentrate.
- 10 13. A method as in claim 12 wherein step a) includes mixing the beta glucan concentrate and encapsulant in ethanol (50% w/w) and step b) includes evaporating the ethanol.
14. A beta-glucan concentrate having a honeycomb structure as shown in Figures 1B, 2B, 3 or 4.
15. A beta-glucan concentrate having high dispersability.
- 15 16. A beta-glucan concentrate as in claim 15 wherein the dispersability is greater than 52%.
17. A beta-glucan concentrate as in claim 15 wherein the dispersability is greater than 99%.